## ABSTRACT OF THE DISCLOSURE

A noninvasive medical device and diagnostic system is disclosed that can be used to determine the degree of viability, flow and stenosis of a graft within the human body. This invention incorporates a sensing element in or near an AV graft. As stenosis occurs within or near the graft, the change in pressure within the graft can be detected by the sensors and provide the physician with information about the location of the stenosis. This information can than be used to provide the best course of treatment for the patient.